STURTEVANT

CATALOGUE NO. 72

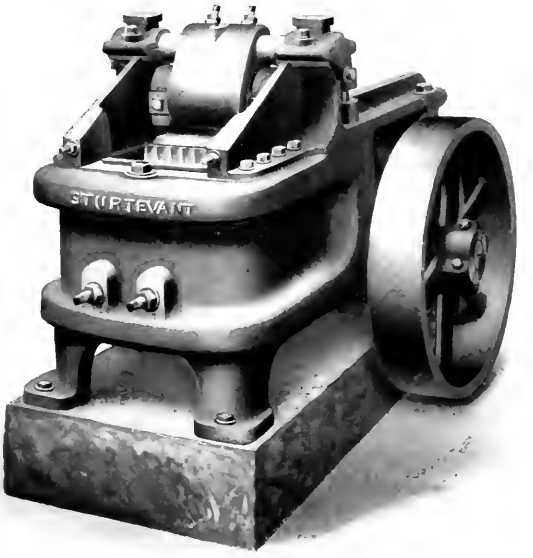
HUNTINGTON MILLS

1907

STURTEVANT MILL CO. BOSTON MASS.

STURTEVANT

Crushing and Grinding Machinery



(Patented)

STURTEVANT MILL CO.

WORKS AND OFFICES

HARRISON SQUARE, BOSTON, MASS., U. S. A.

Only Eight Minutes' Ride from South Terminal Station, Boston, N. Y., N. H. & H. R. R.
Field's Corner and other Electric Cars

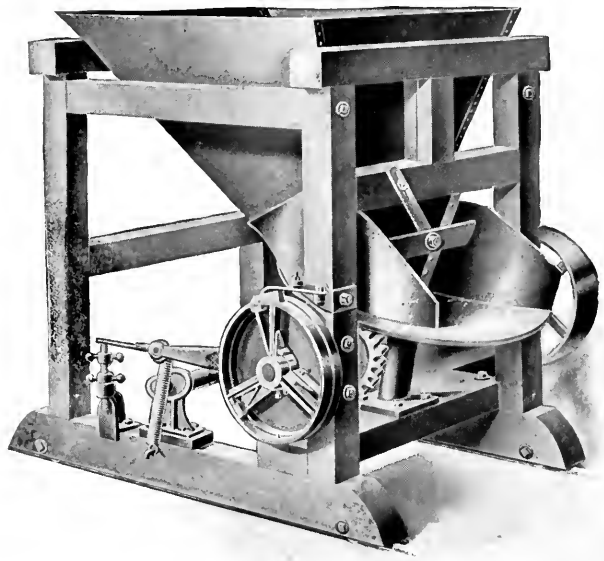
STURTEVANT ENGINEERING CO., Ltd.

London Glasgow Paris Berlin Vienna

AGENCIES

Norway Japan Russia So. Africa Chili

AUTOMATIC FEEDERS

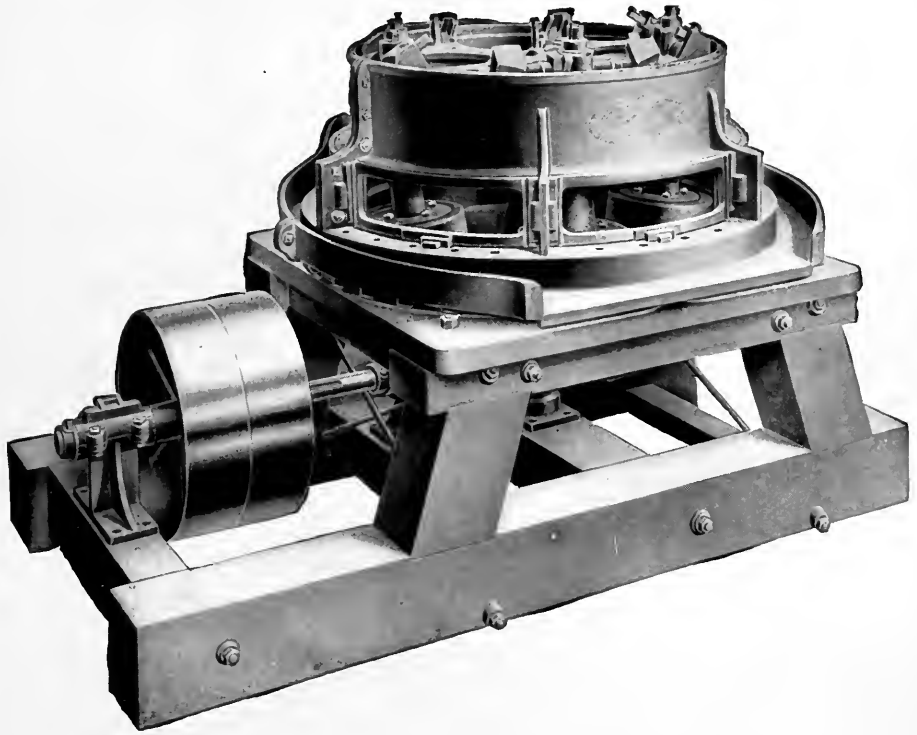


BELT DRIVEN CHALLENGE ORE FEEDER.

The Challenge Ore Feeder driven by a belt is generally used for automatically feeding Huntington Mills, stamps, etc., in fact it is generally acknowledged to be the best for any machines of these types requiring a perfectly even automatic feed. The belt connection is to the Huntington Mill countershaft. A cam on the pulley shaft gives motion to the Feeder. As shown above, our standard Feeder is about 4 feet, 6 inches high; 3 feet, 9 inches wide, and its shipping weight is about 850 pounds.

The capacity of this type of Feeder is limited to about 75 tons per twenty-four hours.

IMPROVED HUNTINGTON MILLS



Improved Five-Foot Huntington Mill.

HUNTINGTON MILLS

Like all other ore reducing machines, have their fields of usefulness, and when properly used on work for which they are adapted, have no superiors.

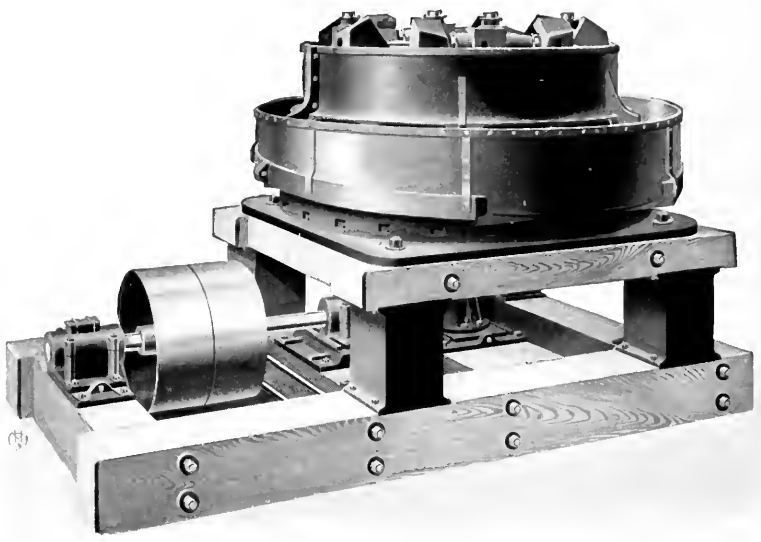
They are the least expensive ore mill to buy, belt, erect, transport and run ; require less power, per ton of ore crushed than any other grinder. They prevent all flouring of quicksilver, thus obviating the loss of gold which is so great with Stamp Mills.

Their range of work is enormous, taking ore direct from the Crusher and producing a remarkably fine output, or re-grinding from Stamps, crushing Jig tailings, etc , etc. For Gold ores they are especially suited, both for crushing and amalgamating. For concentration they also excel, producing minimum slimes, and having a large, uniform output. For fine concentration they are therefore especially adapted, leaving the pulp in better condition for the tables than any other machine.

The reason for this is obvious, for with large screening surfaces, and ample water, the ore passes through the screens as soon as made ; thus there is practically no over-crushing.

The Mills are simple, easy to keep in condition, conveniently belted and accessible for repairs.

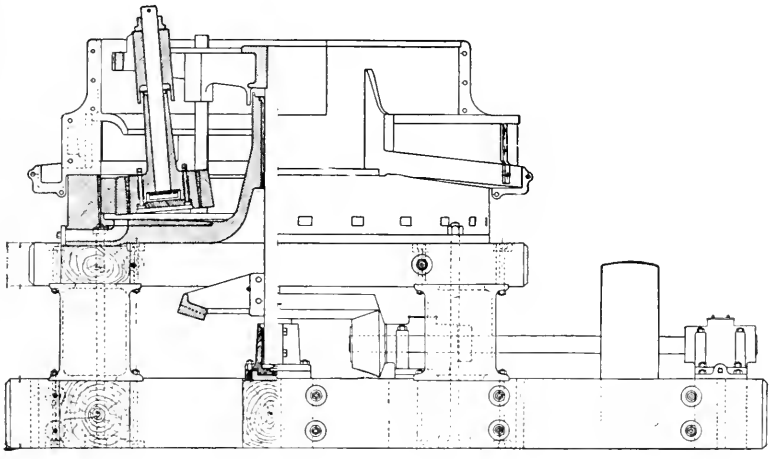
IMPROVED HUNTINGTON MILLS



Special Heavy Six-Foot Huntington Mill.

Operation: The ore and water are fed to the mill through the hopper (see plan view), the ore is thrown against the ring die by the rotating scrapers and crushed by the roller rings, which are held forcibly against it by centrifugal force. When the ore is crushed fine enough, it passes out through the screens against which the ore and water are continually thrown by the action of the revolving rollers and scrapers. There is a space of about an inch between the bottoms of the rollers and the bottom of the mill, which allows them to pass over the amalgam and quicksilver, at the same time sufficiently agitating the pulp to make perfect amalgamation. It can be used only for wet crushing.

IMPROVED HUNTINGTON MILLS

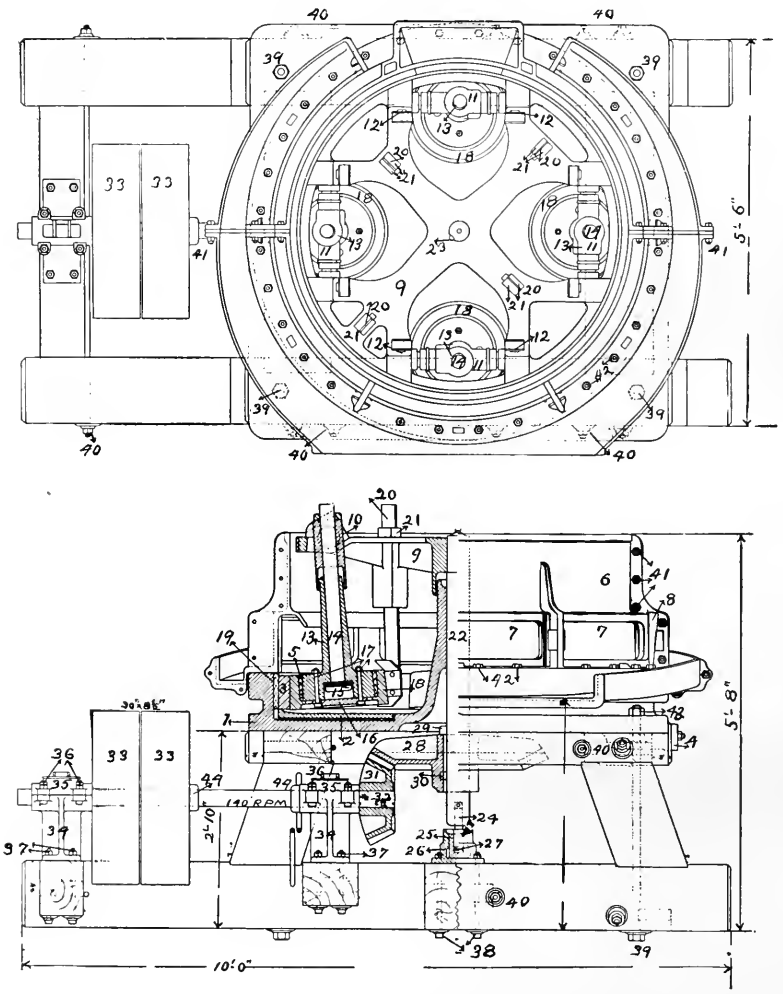


Special Heavy Six-Foot Huntington Mill.

(SECTIONAL ELEVATION)

The above cut shows the Special Heavy Six-Foot Huntington Mill with a single pulley, arranged to be driven by a friction clutch pulley on the line shaft, instead of tight and loose pulleys as shown in cut on page 3. The step-box, as shown above is made in halves so that the steel buttons and the brass bushing that form the wearing parts can be replaced without taking out the main driving spindle. This is the only one of the Huntington Mills which is built this way. It is also furnished with a special sheet steel splash guard, as shown on page 4, and the frame has iron legs, making a most solid foundation.

IMPROVED HUNTINGTON MILLS



Improved Five-Foot Huntington Mill.

IMPROVED HUNTINGTON MILLS

GENERAL DIMENSIONS, SPEED, WEIGHT.

Code Word	Size	FRAME			Total Height	PULLEYS			H. P.	Usual Capacity Tons per 24 hours	Approx. Weight Heaviest Piece	Approx. Total Wt. of Mill Complete net	Approx Total Weight Gross
		Width	Length	Height		Dia. in.	Face in.	Rev.					
Gehunt	3½ ft. Reg.	4 ft. 1 in.	7 ft. 2 in	2 ft. 4 in.	5 ft. 0 in.	20	6½	135	5	10 to 16	1592 lbs.	7000 lbs.	8000 lbs.
Gehang	5 ft. "	5 ft. 6 in.	10 ft. 0 in.	2 ft. 10 in.	5 ft. 8 in.	30	8½	140	8	20 to 36	5000 lbs.	15000 lbs.	17000 lbs.
Gehony	6 ft. "	6 ft. 6 in.	11 ft 0 in.	3 ft. 1 in.	6 ft. 7½ in.	36	9½	110	10	40 to 75	9700 lbs.	25500 lbs.	29000 lbs.
Gehave	6 ft. Hev.	8 ft. 0 in	14 ft. 0 in.	3 ft. 9½ in.	7 ft. 7 in.	32	12½	165	15	40 to 75	14200 lbs.	44600 lbs.	48000 lbs.

The speeds given in the above table are those used when the Mills are taking ore from rock breakers. When used to recrush tailings or fine material, the speeds are increased about ten per cent.

We advocate feeding Hunting Mills with as fine ore as possible thus saving greatly in wear, tear and power.

The five-foot Mill is made sectional, for mule back transportation, so that no piece exceeds 350 pounds in weight, and only five pieces exceed 300 pounds in weight.

The 3½-foot Mill is made sectional also, so that no piece exceeds 350 pounds in weight except the ring die, weight 450 pounds.

IMPROVED HUNTINGTON MILLS

DIRECTIONS FOR ERECTING AND OPERATING HUNTINGTON MILLS.

The wood frame should be set on a masonry foundation or on two mud-sills about 12 x 12 in. by 14 ft. If set on mud-sills, the frame should be locked into them about 2 in. and secured by keys.

Hang the rollers so that the top of the roller rings and the top of the ring die will be even.

Set the scrapers, No. 20, about ¼ in. above the bottom, when the Mills are used for crushing and amalgamating ore, and about ⅛ in. from bottom when the Mills are used for recrushing, or on fine material

See that all nuts are screwed tight.

Fill oil recess at No. 16 two-thirds full of Albany Compound.

Put wooden plugs in oil holes in Main Spindle and Roller Spindles, to keep out the sand.

The Main Spindle should be oiled every six hours and the Roller Spindles every day.

The Hanger Boxes should never be oiled.

In replacing the Ring Die or the Roller Rings, the wedges should be made of pine or spruce, not of hard wood.

As the Rollers will pass through the openings in the Driver and the Ring Die will pass over it, it is unnecessary to remove this from the Spindle; the Curb, however, must be removed in order to replace the Ring Die.

The grinding attachment which we supply for trueing up the surface of the Ring Die is to be put in place of one of the Rollers and it can be so put in place and be in use while the Mill is still crushing ore. It is desirable to keep the face of the Ring Die as free from uneven places as possible.